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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/026,515	12/27/2001	Dong Yeung Kwak	0465-0870P	9371

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EXAMINER	
NGUYEN, HOAN C	

ART UNIT	PAPER NUMBER
2871	

DATE MAILED: 12/23/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/026,515	KWAK ET AL.	
	Examiner	Art Unit	
	HOAN C. NGUYEN	2871	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☒ This action is **FINAL.** 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-5,8-15 and 20* is/are pending in the application.

4a) Of the above claim(s) *6-7, 16-19 and 21* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) _____ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Election/Restrictions

Applicant's election of Group A (claims 1-5, 8-15 and 20) on September 26, 2003 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Response to Amendment

Applicant's arguments with respect to Amended claims 1, 2, 9 and 10 (Amendment on August 11, 2003) have been considered but are moot in view of the new ground(s) of rejection. Therefore, **this is Final action**.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1. Claim1-5, 8-15 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shimada et al. (US00RE37591E).

In regard to claims 1 and 2, Shimada et al. teach (Figs. 2, 3, 4, 5B) a display panel including

- a first substrate having an array region and an array peripheral region as shown in Fig. 3.
- a second substrate having color filters which overlaps to function as light shielding,
- the display panel comprising:
    - o a plurality of gate lines 2 on the first substrate;
    - o a gate insulating film on the first substrate including the gate lines; this is enhanced feature of active matrix LC display;
    - o a plurality of data lines 3 arranged to cross the gate lines, for defining a pixel region on the array region;
    - o a light leakage prevention (light shield 9) film formed between the gate lines of the array peripheral region (light shield 9 covers gate lines and region between gate lines), for preventing light leakage, the array peripheral region (Fig. 3 col. 48-49) excluding pixel electrode as shown in Fig. 4 or 14.
    - o a TFT 1 and a pixel electrode 6 formed in each pixel region.
    - o a liquid crystal layer 25 formed between the first and second substrates.

wherein

- the light leakage prevention film is formed simultaneously with at least one of the gate lines (col. 6 lines 54-59) according to claim 4.

- the light leakage prevention film is formed to prevent an electrical short with the data lines due to gate insulating formed above gate lines and light shield 9 (claim 5).

In regard to claims 9-10, Shimada et al. teach (Figs. 2, 3, 4, 5B) a display panel including a method for manufacturing a display panel including a first substrate having an array region and an array peripheral region, and a second substrate having color filters which overlaps to function as light shielding, the method comprising the steps of:

- forming a plurality of gate lines 2 on the first substrate;
- forming a gate insulating film on the first substrate including the gate lines; this is enhanced step for forming active matrix LC display.
- forming a plurality of data lines 3 to cross the gate lines and define a pixel region on the array region;
- forming a light leakage prevention (light shield 9) film formed between the gate lines of the array peripheral region (light shield 9 covers gate lines and region between gate lines), for preventing light leakage, the array peripheral region (Fig. 3 col. 48-49) excluding pixel electrode as shown in Fig. 4 or 14.
- forming a TFT 1 at a crossing point of a corresponding one of the gate lines and a corresponding one of the data lines;
- forming a passivation film 8 on the first substrate including the TFT; and
- forming a pixel electrode 6 coupled with the TFT on the passivation film.
- forming a liquid crystal layer between the first and second substrates.

wherein

- the light leakage prevention film is formed simultaneously with at least one of the gate lines to prevent light leakage in the display panel (col. 6 lines 54-59) according to claims 12.
- the light leakage prevention film is formed of a conductive material having a high reflectivity since the light-shielding pattern (light leakage prevention film) 9 is formed in the same patterning step as that of the gate lines 2 which are made of Aluminum (col. 5 lines 53-55 and col. 6 lines 57-58) according to claims 13-14.
- the light leakage prevention film is formed to prevent an electrical short with the data lines due to gate insulating formed above gate lines and light shield 9 (claim 15).

However, Shimada et al. fail to disclose a display panel comprising

- the second substrate having the black matrix and a color filter layer and facing the first substrate (claims 3 and 11);
- a capacitor metal layer to partially overlap an upper portion of one of the gate lines (claim 8 and 20).

Shimada et al. disclose that it is conventional a display panel comprising a black matrix is generally provided on the color filters formed on the counter substrate (second substrate) to prevent color mixing and light leakage.

It is also well known art that a capacitor metal layer to partially overlap an upper portion of one of the gate lines (claim 8 and 20) for providing a constitution of storing capacities.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify a display panel as Shimada et al. disclosed with (a) a black matrix is generally provided on the color filters formed on the counter substrate (second substrate) to prevent color mixing and light leakage; (b)a capacitor metal layer (capacitor electrode) to partially overlap an upper portion of one of the gate lines (claim 8 and 20) for providing a constitution of storing capacities.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HOAN C. NGUYEN whose telephone number is (703) 306-0472. The examiner can normally be reached on MONDAY-THURSDAY:8:00AM-4:30PM.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0530.

HOAN C. NGUYEN
Examiner
Art Unit 2871

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T. Chowdhury
Primary Examiner